

## Federal Communications Commission

## § 74.651

isotropically radiated power (EIRP) does not exceed +45 dBW for any antenna beam directed within 1.5 degrees of the stationary satellite orbit.

(c) Methods for calculating the azimuths to be avoided may be found in: CCIR Report No. 393 (Green Books), New Delhi, 1970; in "Radio-Relay Antenna Pointing for controlled Interference With Geostationary-Satellites" by C. W. Lundgren and A. S. May, *Bell System Technical Journal*, Vol. 48, No. 10, pp. 3387-3422, December 1969; and in "Geostationary Orbit Avoidance Computer Program" by Richard G. Gould, Common Carrier Bureau Report CC-7201, FCC, Washington, DC, 1972. This latter report is available through the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22151, in printed form (PB-211 500) or source card deck (PB-211 501).

[52 FR 7143, Mar. 9, 1987]

### § 74.644 Minimum path lengths for fixed links.

(a) The distance between end points of a fixed link must equal or exceed the value set forth in the table below or the EIRP must be reduced in accordance with the equation set forth below.

Frequency band (MHz)	Minimum path length (km)
below 1,850 .....	n/a
1,850—2,110 .....	17
6,425—7,125 .....	17
12,200—13,250 .....	5
above 17,700 .....	n/a

(b) For paths shorter than those specified in the Table, the EIRP shall not exceed the value derived from the following equation.

$EIRP = 30 - 20 \log [A/B]$ , dBW

where:

EIRP=equivalent isotropic radiated power in dBW.

A=Minimum path length from the Table for the frequency band in kilometers.

B=The actual path length in kilometers.

(c) Upon an appropriate technical showing, applicants and licensees unable to meet the minimum path length requirement may be granted an exception to these requirements.

NOTE: Links authorized prior to April 1, 1987, are excluded from this requirement, except that, effective April 1, 1992, the Commis-

sion will require compliance with the criteria where an existing link would otherwise preclude establishment of a new link.

[52 FR 7143, Mar. 9, 1987]

### § 74.651 Equipment changes.

(a) Commission authority, upon appropriate formal application (FCC Form 313) therefor, is required for any of the following equipment changes:

(1) Replacement of a specifically authorized transmitter by a transmitter that is not type accepted or notified for operation under this subpart pursuant to § 74.655(c).

(2) A change in the frequency of the operating channel or the transmitter output power.

(3) A change in the location of the TV broadcast auxiliary station transmitter or transmitting antenna authorized for use at a fixed location except when the relocation of the transmitter is within the same building.

(4) Any change in the overall height of the antenna structure, except where notice to the Federal Aviation Administration is specifically not required under § 17.14(b) of this chapter.

(5) Any change in the direction of the main radiation lobe of the transmitting antenna.

(b) Other equipment changes not specifically referred to in paragraph (a) of this section may be made at the discretion of the licensee provided that the Federal Communications Commission, Broadcast Auxiliary Radio Services, 1270 Fairfield Road, Gettysburg, Pennsylvania 17325 is promptly notified in writing upon the completion of such changes, and that the changes are described in the notification.

(c) Multiplexing equipment may be installed on any licensed TV broadcast STL, TV relay or translator relay station without authority from the Commission.

(d) Any application proposing a change in the height of the antenna or its location must also include the Antenna Structure Registration Number (FCC Form 854R) of the antenna structure upon which it will locate its proposed antenna. In the event the antenna structure does not have a Registration Number, either the antenna structure owner shall file FCC Form

854 (“Application for Antenna Structure Registration”) in accordance with part 17 of this chapter or the applicant shall provide a detailed explanation why registration and clearance are not necessary.

[28 FR 13718, Dec. 14, 1963, as amended at 38 FR 6827, Mar. 13, 1973; 47 FR 54448, Dec. 3, 1982; 47 FR 55938, Dec. 14, 1982; 49 FR 7131, Feb. 27, 1984; 58 FR 19776, Apr. 16, 1993; 61 FR 4368, Feb. 6, 1996]

**§ 74.655 Authorization of equipment.**

(a) Except as provided in paragraph (b), all transmitting equipment first marketed for use under this subpart or placed into service after October 1, 1981, must be type accepted or notified, as detailed in paragraph (g) of this section. Equipment which is used at a station licensed prior to October 1, 1985, which is not type accepted or notified, as detailed in paragraph (g) of this section, may continue to be used by the licensee or its successors or assignees, provided that if operation of such equipment causes harmful interference due to its failure to comply with the technical standards set forth in this subpart, the FCC may, at its discretion, require the licensee to take such corrective action as is necessary to eliminate the interference. However, such equipment may *not* be further marketed or reused under Part 74 after October 1, 1985. Transmitters designed for use in the 31.0 to 31.3 GHz band shall be authorized under the notification procedure.

(b) Type acceptance or notification is not required for transmitters used in conjunction with TV pickup stations operating with a peak output power not greater than 250 mW. Pickup stations operating in excess of 250 mW licensed pursuant to applications accepted for filing prior to October 1, 1980 may continue operation subject to periodic renewal. If operation of such equipment causes harmful interference the FCC may, at its discretion, require the licensee to take such corrective action as is necessary to eliminate the interference.

(c) The license of a TV auxiliary station may replace transmitting equipment with type accepted or notified equipment, as detailed under paragraph (g) of this section, without prior FCC

approval, provided the proposed changes will not depart from any of the terms of the station or system authorization or the Commission’s technical rules governing this service, and also provided that any changes made to type accepted or modified transmitting equipment is in compliance with the provisions of Part 2 of the FCC Rules concerning modifications to authorized equipment.

(d) Any manufacturer of a transmitter to be used in this service may apply for type acceptance or notification following the procedures set forth in Part 2 of the FCC Rules.

(e) An applicant for a TV broadcast auxiliary station may also apply for type acceptance or notification, as specified in paragraph (f) of this section, for an individual transmitter by following the procedures set forth in Subpart J of Part 2 of the FCC Rules and Regulations. Individual transmitters which are authorized will not normally be included in the FCC’s Radio Equipment List.

(f) As of March 5, 1984, transmitters designed to be used exclusively for a TV STL station, a TV intercity relay station, a TV translator relay station, or a TV microwave booster station, shall be authorized under the notification procedure. All other transmitters will be authorized under the type acceptance procedure. Transmitters authorized under type acceptance are acceptable for use in all TV broadcast auxiliary stations (see § 2.904(d) of this chapter).

[49 FR 4000, Feb. 1, 1984, as amended at 49 FR 7131, Feb. 27, 1984; 49 FR 8253, Mar. 6, 1984; 49 FR 20504, May 15, 1984; 50 FR 7343, Feb. 22, 1985; 50 FR 32417, Aug. 12, 1985; 51 FR 26251, July 22, 1986]

**§ 74.661 Frequency tolerance.**

Stations in this service shall maintain the carrier frequency of each authorized transmitter to within the following percentage of the assigned frequency.

Frequency band (MHz)	Frequency Tolerance	
	Fixed (%)	Mobile (%)
1,990 to 2,110 .....	± 0.005	0.005
6,425 to 6,525 .....		0.005
6,875 to 7,125 .....	± 0.005	0.005